IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

O I P E JC174
NOV 2 0 2002
PATENT & TRADEMARK OFFICE

RECEIVED
NOV 2 5 2002
TC 1700

In re Patent Application of

GRAY

Serial No. 09/486,183

Filed: February 23, 2000

Title: FIBRE REINFORCED COMPOSITES

Atty Dkt. 540-188
C# M#
Group Art Unit: 1733
Examiner: J. Aftergut
Date: November 20, 2002

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

RESPONSE/AMENDMENT/LETTER

This is a response/amendment/letter in the above-identified application and includes an attachment which is hereby incorporated by reference and the signature below serves as the signature to the attachment in the absence of any other signature thereon.

Fees are attached as calculated below:

Total effective claims after amendment **13** minus highest number previously paid for **20** (at least 20) = 0 x $ 18.00 — $ 0.00

Independent claims after amendment **1** minus highest number previously paid for **3** (at least 3) = 0 x $ 84.00 — $ 0.00

If proper multiple dependent claims now added for first time, add $280.00 (ignore improper) — $ 0.00

Petition is hereby made to extend the current due date so as to cover the filing date of this paper and attachment(s) ($110.00/1 month; $400.00/2 months; $920.00/3 months) — $ 920.00

Terminal disclaimer enclosed, add $ 110.00 — $ 0.00

☐ First/second submission after Final Rejection pursuant to 37 CFR 1.129(a) ($740.00) — $ 0.00
- ☐ Please enter the previously unentered , filed
- ☐ Submission attached

Subtotal $ **920.00**

If "small entity," then enter half (1/2) of subtotal and subtract — -$ 0.00
☐ Applicant claims "small entity" status. ☐ Statement filed herewith

Rule 56 Information Disclosure Statement Filing Fee ($180.00) — $ 0.00

Assignment Recording Fee ($40.00) — $ 0.00

Other: **0.00**

TOTAL FEE ENCLOSED $ **920.00**

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140. A duplicate copy of this sheet is attached.

1100 North Glebe Road, 8th Floor
Arlington, Virginia 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100
SCS:kmm

NIXON & VANDERHYE P.C.
By Atty: Stanley C. Spooner, Reg. No. 27,393

Signature: ______________________

11/21/2002 HBIZUNES 00000140 09486183
01 FC:1253 920.00 OP

685664

1783

#8/6/02

11/26/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

GRAY

Serial No. 09/486,183

Filed: February 23, 2000

For: FIBRE REINFORCED COMPOSITES

Atty. Ref.: 540-188

Group: 1733

Examiner: J. Aftergut

* * * * * * * * * * * *

November 20, 2002

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

REQUEST FOR CLARIFICATION AND RECONSIDERATION

This paper is responsive to the outstanding Official Action mailed May 20, 2002 (Paper No. 6), the date of response to which has been extended three months up to and including November 20, 2002, in view of the attached three-month extension of time petition and petition fee.

REMARKS

The Office Action Summary Sheet and the text of the first action rejection state that claims 1-11 are pending in this application. However, when this application was filed in the United States on February 23, 2000, 13 claims were pending in the PCT application and indeed those 13 claims were pending in the U.S. application. It is noted that even when the PCT application was published on August 17, 2000, some almost six months after the filing of the U.S. application, the original 13 claims remained. Finally,

the Official US PTO Filing Receipt indicates that 13 claims are present in this application as filed and no claims have been cancelled in the interim.

As a result of the PTO error applicant respectfully requests that the Office examine claims 1-13 as originally filed. In order to aid the Office in its examination, applicant will respond to the outstanding Official Action to the extent it can be understood as being applicable to the originally filed claims 1-13.

Claims 5-11 stand objected to as being in improper form. Claims 5-11 as originally filed and as currently present in the application are all singly dependent and therefore are entitled to examination on the merits and the same is respectfully requested.

Claims 1, 2 and 4 stand rejected under 35 USC §102(b) as anticipated or under 35 USC §103 as obvious over Vane (U.S. Patent 5,055,242). The Examiner correctly points out that Vane teaches a pultrusion operation in Figure 3. However, Vane also teaches a bulk molding operation shown in Figure 1 and the Examiner suggests that the utilization of patches 3a and 4a in Figure 1 would be readily applicable to the pultrusion method shown in Figure 3.

Those having ordinary skill in the art will be clearly aware that patches of fiber reinforcing material, which shown being utilized in a molding system in Vane's Figure 1, could not be used in a pultrusion system. Therefore, one would not use the patches 3a and 4a of Figure 1 in the pultrusion method of Figure 3 as discussed in the Vane reference.

It is noted that applicant's independent claim 1 specifies "incorporating in the reinforcing fibres **prior to the pultrusion step** additional fibres in order to vary the

strength characteristics of the final product substantially without altering the cross-sectional area thereof" (emphasis added). The incorporation of patches 3a and 4a "prior to the pultrusion step" in Figure 3 of Vane would result in severe distortion and most probably clogging of the pultrusion dye. Therefore, modifying the Vane reference by applying the use of patches shown in the molding step of Figure 1 to the pultrusion process of Figure 3 is simply not possible.

The Examiner admits that Vane "failed to state that the additional reinforcements 3a, 4a would have been provided from a fiber material different from the fiber material of the other plies in the composite." This admission is very much appreciated. However, the subsequent indication that one skilled in the art would have understood that fibers of a different type "would have been provided in different regions of the finished assembly" does not suggest that applicant's invention of adding reinforcing fibers prior to a pultrusion step would be obvious.

Because Vane teaches both the addition of fibers (in the form of patches 3a and 4a) to a molded article and, in different embodiment, a pultrusion process, does not mean that there is any disclosure or there is any reason why one of ordinary skill in the art would try adding additional fibers from the molding step in Figure 1 to a pultrusion process in Figure 3.

Applicant is the first inventor to realize and indeed the first to reduce to practice the idea of adding reinforcing fibers prior to a pultrusion step so as to vary the strength characteristics of the final product (made by the pultrusion process) without altering the cross-sectional area thereof. Thus, applicant's claim 1 and claims dependent thereon

clearly distinguish over the Vane reference and any further objection or rejection thereto is respectfully traversed.

The Examiner also rejects claims 1, 2 and 4 under 35 USC §103 as being unpatentable over Vane in viw of any one of Kalnin, Durand or Gorthala. Inasmuch as claims 1, 2 and 4 are previously discussed with respect to the Vane reference and Vane is replied upon in this rejection, the above comments distinguishing over the Vane reference are herein incorporated by reference.

Claim 3 stands rejected under 35 USC §103 as unpatentable over the references cited in paragraph 6, i.e. Vane/Kalnin/Durand/Gorthala, further taken with any one of Yokota or Street. Inasmuch as claim 3 ultimately depends from claim 1, the comments regarding the rejection of claims 1, 2 and 4 over Vane by itself or Vane in combination with Kalnin/Durand/Gorthala is herein incorporated by reference.

Applicant's review of all prior art cited in this case does not indicate any reference which contains any suggestion or teaching for adding reinforcing fibers prior to a pultrusion step, whether those reinforcing fibers are in the form of a patch or are in the form of additional fibers in the longitudinal sequence of fibers being pultruded. Should the Examiner believe there to be **any** disclosure in **any** cited reference of the addition of fibers "prior to the pultrusion step," he is respectfully requested to point out that portion of the prior art reference. In the absence of any clear teaching, allowance of the claims is believed appropriate.

Applicant respectfully requests that the U.S. Patent and Trademark Office refund the extension fee filed herewith necessary to maintain this application in a pending status

while the Patent Office provides the first Official Action on the merits of claims 1-13 as originally filed and as confirmed in applicant's filing receipt. But for the Patent Office error in examining the wrong claims and sending out an Official Action directed to the examination of the wrong claims, applicant would not have had to spend the extension fee needed to maintain the case while the confusion relating to the Patent Office's examining the wrong claims was straightened out. Accordingly, a complete refund of the extension fee is respectfully requested.

Having responded to the extent possible, pending claims 1-13 are in condition for allowance and notice to that effect is respectfully solicited. In the event the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the claims, he is respectfully requested to contact applicant's undersigned representative.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____
Stanley C. Spooner
Reg. No. 27,393

SCS:kmm
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100